

**WEST**[Help](#)[Logout](#)[Interrupt](#)[Main Menu](#)[Search Form](#)[Posting Counts](#)[Show S Numbers](#)[Edit S Numbers](#)[Preferences](#)**Search Results -**

Term	Documents
PSMA.USPT,PGPB.	60
PSMAS	0
PROSTATE.USPT,PGPB.	7656
PROSTATES.USPT,PGPB.	325
SPECIFIC.USPT,PGPB.	1115903
SPECIFICS.USPT,PGPB.	9923
MEMBRANE.USPT,PGPB.	122123
MEMBRANES.USPT,PGPB.	61294
ANTIGEN.USPT,PGPB.	32729
ANTIGENS.USPT,PGPB.	21747
(PSMA OR (PROSTATE ADJ SPECIFIC ADJ MEMBRANE ADJ ANTIGEN)).CLM..USPT,PGPB.	17

US Patents Full-Text Database  
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IBM Technical Disclosure Bulletins

**Database:****Refine Search:**(psma or prostate adj specific adj  
membrane adj antigen).clm.**Clear****Search History****Today's Date: 6/26/2001**

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT,PGPB	(psma or prostate adj specific adj membrane adj antigen).clm.	17	<u>L1</u>

\*\*\*Extel New Card from Primark (File 501)  
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\*\*\*Kompa Middle East/Africa/Mediterranean (File 585)  
\*\*\*Kompa Asia/Pacific (File 592)  
\*\*\*Kompa Central/Eastern Europe (File 593)  
\*\*\*Kompa Canada (File 594)

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File 1:ERIC 1966-2001/Jun 05  
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Set	Items	Description
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? b 410

>>>'IALOG' not recognized as set or accession number  
? set hi ;set hi

26jun01 10:41:53 User208760 Session D1868.1		
\$0.41	0.118 DialUnits	File1
\$0.41	Estimated cost File1	
\$0.05	TYMNET	
\$0.46	Estimated cost this search	
\$0.46	Estimated total session cost	0.118 DialUnits

File 410:Chronolog(R) 1981-2001/May  
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Set	Items	Description
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?

HIGHLIGHT set on as ''

HIGHLIGHT set on as ''

? begin 5,73,155,399

26jun01 10:42:49 User208760 Session D1868.2		
\$0.00	0.057 DialUnits	File410
\$0.00	Estimated cost File410	

\$0.05 TYMNET  
\$0.05 Estimated cost this search  
\$0.51 Estimated total session cost 0.175 DialUnits

SYSTEM:OS - DIALOG OneSearch  
File 5:Biosis Previews(R) 1969-2001/Jun W3  
(c) 2001 BIOSIS  
File 73:EMBASE 1974-2001/Jun W3  
(c) 2001 Elsevier Science B.V.  
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? s (psma or prostate(w)specific(w)membrane(w)antigen) and (vaccin?)

Processing

	427	PSMA
	156086	PROSTATE
	2423541	SPECIFIC
	1621037	MEMBRANE
	998697	ANTIGEN
	731	PROSTATE(W)SPECIFIC(W)MEMBRANE(W)ANTIGEN
	323591	VACCIN?
S1	63	(PSMA OR PROSTATE(W)SPECIFIC(W)MEMBRANE(W)ANTIGEN) AND (VACCIN?)

? rd s1

...examined 50 records (50)  
...completed examining records  
S2 48 RD S1 (unique items)  
? t s2/7/all

2/7/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2001 BIOSIS. All rts. reserv.

12705092 BIOSIS NO.: 200000458594  
Development of dendritic-cell based prostate cancer **vaccine**.  
AUTHOR: Tjoa Benjamin A(a); Murphy Gerald P  
AUTHOR ADDRESS: (a)Pacific Northwest Cancer Foundation, 13758 Lake City Way  
NE, Suite 200, Seattle, WA, 98125\*\*USA  
JOURNAL: Immunology Letters 74 (1):p87-93 September 15, 2000  
MEDIUM: print  
ISSN: 0165-2478  
DOCUMENT TYPE: Literature Review  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

ABSTRACT: Available treatments for metastatic prostate cancer have failed  
to demonstrate significant curative potential. Current efforts are now  
directed towards developments of novel strategies for the treatment of  
metastatic prostate cancer. Cancer immunotherapeutic strategies utilize  
patient immune system components to kill cancer cells. This review  
discusses progress in active specific immunotherapeutic approaches as

potential alternative methods in the treatment of metastatic prostate cancer. One of the newest advances in cancer immunotherapy is the use of dendritic cells as the vehicle to deliver cancer antigens for an effective in vivo T cell activation. The development of dendritic cell-based prostate cancer **vaccine**, as well as results of several clinical trials in prostate cancer involving the administration of peptide-pulsed autologous dendritic cell pulsed are discussed.

2/7/2 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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12704771 BIOSIS NO.: 200000458273  
The dendritic cell and human cancer **vaccines**.  
AUTHOR: Dallal Ramsey M(a); Lotze Michael T  
AUTHOR ADDRESS: (a)Department of Surgery, Division of Surgical Oncology,  
University of Pittsburgh Medical Center, 200 North Lothrop Street, 677  
Scaife Hall, Pittsburgh, PA, 15261\*\*USA  
JOURNAL: Current Opinion in Immunology 12 (5):p583-588 October, 2000  
MEDIUM: print  
ISSN: 0952-7915  
DOCUMENT TYPE: Literature Review  
RECORD TYPE: Citation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

2/7/3 (Item 3 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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12703508 BIOSIS NO.: 200000457010  
A phase I clinical trial consisting of dendritic cells and recombinant,  
human **prostate-specific membrane antigen** (rhPSMA)  
protein.  
AUTHOR: Salgaller M L(a); Elgamal A A(a); Lodge P A(a); Shankar G(a); Bowes  
V A(a); Bader R R(a); Kelley H J(a); Boynton A L(a)  
AUTHOR ADDRESS: (a)Northwest Biotherapeutics, Inc., Seattle, WA\*\*USA  
JOURNAL: Journal of Immunotherapy 23 (5):p607 September-October, 2000  
MEDIUM: print  
CONFERENCE/MEETING: 15th Annual Scientific Meeting of the Society for  
Biological Therapy Seattle, Washington, USA October 26-29, 2000  
SPONSOR: Society for Biological Therapy  
RECORD TYPE: Citation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

2/7/4 (Item 4 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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12618473 BIOSIS NO.: 200000371975  
Naked DNA and adenoviral immunizations for immunotherapy of prostate  
cancer: A phase I/II clinical trial.  
AUTHOR: Mincheff Milcho(a); Tchakarov Stoyan; Zoubak Serguei; Loukinov  
Dmitri; Botev Chavdar; Altankova Iskra; Georgiev Georgi; Petrov Stefan;  
Meryman Harold T  
AUTHOR ADDRESS: (a)Biomedical Research Institute, 12111 Parklawn Drive,  
Rockville, MD, 20852\*\*USA  
JOURNAL: European Urology 38 (2):p208-217 Augusr, 2000  
MEDIUM: print  
ISSN: 0302-2838  
DOCUMENT TYPE: Article

RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

**ABSTRACT:** Introduction and Objectives: Animal studies have indicated that the use of syngeneic dendritic cells that have been transfected ex vivo with DNA for tumor-specific antigen results in tumor regression and decreased number of metastases. Additional studies have also suggested the possibility to modulate the dendritic cells in vivo either by 'naked' DNA immunization or by injecting replication-deficient viral vectors that carry the tumor-specific DNA. Using the **prostate-specific membrane antigen (PSMA)** as a target molecule, we have initiated a clinical trial for immunotherapy of prostate cancer. The primary objective of the study was to determine the safety of the **PSMA vaccine** after repeated intradermal injections. Methods: We have included the extracellular human **PSMA** DNA as well as the human CD86 DNA into separate expression vectors (**PSMA** and CD86 plasmids), and into a combined **PSMA/CD86** plasmid. In addition, the expression cassette from the **PSMA** plasmid was inserted into a replication deficient adenoviral expression vector. Twenty-six patients with prostate cancer were entered into a phase I/II toxicity-dose escalation study, which was initiated in spring 1998. Immunizations were performed intradermally at weekly intervals. Doses of DNA between 100 and 800 mug and of recombinant virus at 5X10<sup>8</sup> PFUs per application were used. Results and Conclusion: No immediate or long-term side effects following immunizations have been recorded. All patients who received initial inoculation with the viral vector followed by **PSMA** plasmid boosts showed signs of immunization as evidenced by the development of a delayed-type hypersensitivity reaction after the **PSMA** plasmid injection. In contrast, of the patients who received a **PSMA** plasmid and CD86 plasmid, only 50% showed signs of successful immunization. Of the patients who received **PSMA** plasmid and soluble GM-CSF, 67% were immunized. However, all patients who received the **PSMA/CD86** plasmid and sGM-CSF became immunized. The patients who did not immunize during the first round were later successfully immunized after a boost with the viral vector. The heterogeneity of the medical status and the presence in many patients of concomitant hormone therapy does not permit unequivocal interpretation of the data with respect to the effectiveness of the therapy. However, several responders, as evidenced by a change in the local disease, distant metastases, and PSA levels, can be identified. A phase II clinical study to evaluate the effectiveness of the therapy is currently underway.

2/7/5 (Item 5 from file: 5)  
DIALOG(R) File 5: Biosis Previews(R)  
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12541217 BIOSIS NO.: 200000294719  
Expression of prostate specific molecules in BCG: A potential immunotherapeutic **vaccine**.  
AUTHOR: Zeoli Christin; Maitland Michael; Bloom Barry; Rose Herbert; Mittelman Abraham; Geliebter Jan  
AUTHOR ADDRESS: (a) Albert Einstein Coll of Medicine, Bronx, NY\*\*USA  
JOURNAL: Proceedings of the American Association for Cancer Research Annual Meeting (41):p875 March, 2000  
MEDIUM: print.  
CONFERENCE/MEETING: 91st Annual Meeting of the American Association for Cancer Research. San Francisco, California, USA April 01-05, 2000  
ISSN: 0197-016X  
RECORD TYPE: Citation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

2/7/6 (Item 6 from file: 5)  
DIALOG(R)File 5: Biosis Previews(R)  
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12532209 BIOSIS NO.: 200000285711  
Assessing the immune status of prostate cancer patients infused with dendritic cells expressing **PSMA**-derived peptides.  
AUTHOR: Salgaller M L; Jones L A; Lodge P A; Kelley H J; Bader R R; Boynton A L; Murphy G P  
AUTHOR ADDRESS: (a)Northwest Biotherapeutics, Inc., Seattle, WA, 98125\*\*USA  
JOURNAL: Immunological Investigations 29 (2):p195 May, 2000  
MEDIUM: print.  
CONFERENCE/MEETING: Fourteenth International Convocation on Immunology. Buffalo, New York, USA October 08-11, 1999  
ISSN: 0882-0139  
RECORD TYPE: Citation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

2/7/7 (Item 7 from file: 5)  
DIALOG(R)File 5: Biosis Previews(R)  
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12491483 BIOSIS NO.: 200000244985  
Development of **PSMA**-based immunotherapies for prostate cancer.  
AUTHOR: Donovan Gerald P(a); Morrissey Donna M; Olson William C; Heston Warren D W; Israel Robert J  
AUTHOR ADDRESS: (a)Progenics Pharmaceuticals, Inc, Tarrytown, NY\*\*USA  
JOURNAL: Proceedings of the American Association for Cancer Research Annual Meeting (41):p288 March, 2000  
CONFERENCE/MEETING: 91st Annual Meeting of the American Association for Cancer Research. San Francisco, California, USA April 01-05, 2000  
ISSN: 0197-016X  
RECORD TYPE: Citation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

2/7/8 (Item 8 from file: 5)  
DIALOG(R)File 5: Biosis Previews(R)  
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12076180 BIOSIS NO.: 199900371029  
**Vaccine** therapy for prostate cancer.  
AUTHOR: Tjoa Benjamin A(a); Elgamal Abdel-Aziz A; Murphy Gerald P  
AUTHOR ADDRESS: (a)Cancer Research Division, Pacific Northwest Cancer Foundation, Northwest Hospital, 120 Northgate\*\*USA  
JOURNAL: Urologic Clinics of North America 26 (2):p365-374 May, 1999  
ISSN: 0094-0143  
DOCUMENT TYPE: Literature Review  
RECORD TYPE: Citation  
LANGUAGE: English

2/7/9 (Item 9 from file: 5)  
DIALOG(R)File 5: Biosis Previews(R)  
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12043018 BIOSIS NO.: 199900323537  
Follow-up evaluation of a phase II prostate cancer **vaccine** trial.  
AUTHOR: Tjoa B A(a); Simmons S J; Elgamal A; Rogers M; Ragde H; Kenny G M; Troychak M J; Boynton A L; Murphy G P  
AUTHOR ADDRESS: (a)Pacific Northwest Cancer Foundation, Northwest Hospital, 120 Northgate Plaza, Suite 205, Seattle\*\*USA

JOURNAL: Prostate 40 (2):p125-129 July 1, 1999  
ISSN: 0270-4137  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

ABSTRACT: BACKGROUND. A phase II trial, involving infusions of autologous dendritic cells (DC) and two human histocompatibility antigen (HLA-A2)-specific **prostate-specific membrane antigen (PSMA)** peptides, was recently completed. Thirty percent of the participants, including subjects with hormone-refractory metastatic disease, and those with suspected local recurrence of prostate cancer, were identified as clinical responders. This report describes the follow-up evaluation of 19 responders in the two study groups. METHODS. After conclusion of the study, study participants were subjected to follow-up evaluations at 6-8-week intervals. Each responder was reevaluated for response status, and duration of response was determined. RESULTS. Subjects were observed for an average of 291 days (metastatic group, group A-2) and 557 days (local recurrence group, group B), which included the treatment and follow-up periods. The average duration of response was 149 days for group A-2, and 187 days for group B. A majority of responders (11/19; 58%) were still responsive at the end of the current follow-up. CONCLUSIONS. The responses observed may be significant and relatively durable. This study suggests that DC-based cancer **vaccines** in the future may provide an additional therapy for advanced prostate cancer.

2/7/10 (Item 10 from file: 5)  
DIALOG(R) File 5: Biosis Previews(R)  
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12023229 BIOSIS NO.: 199900303748

GM-CSF as a systemic adjuvant in a phase II prostate cancer **vaccine** trial.

AUTHOR: Simmons S J; Tjoa B A; Rogers M; Elgamal A; Kenny G M; Ragde H; Troychak M J; Boynton A L; Murphy G P(a)

AUTHOR ADDRESS: (a) Pacific Northwest Cancer Foundation, Northwest Hospital, 120 Northgate Plaza, Suite 205, Seattle\*\*USA

JOURNAL: Prostate 39 (4):p291-297 June, 1999

ISSN: 0270-4137

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

SUMMARY LANGUAGE: English

ABSTRACT: BACKGROUND. Recombinant human granulocyte-macrophage colony-stimulating factor (GM-CSF; Leukine(R) (sargramostim), Immunex Corp., Seattle, WA) was administered to a subgroup of 44 patients in a phase II clinical trial for prostate cancer using DC pulsed with HLA-A2-specific **prostate-specific membrane antigen (PSMA)** peptides. Our purpose was to determine if GM-CSF caused any enhancement of patients' immune responses, including enhancement of clinical response to the DC-peptide treatment. This report compares the clinical responses to DC-peptide infusions with and without systemic GM-CSF treatment. METHODS. GM-CSF was administered by subcutaneous injection at a dose of 75 mug/m2/day for 7 days with each of six infusion cycles. Prefilled syringes were supplied to the patients for self-administration. RESULTS. One complete and 8 partial responders were identified among 44 patients who received GM-CSF, as compared to 2 complete and 17 partial responders among 51 patients who did not receive GM-CSF. For patients who received GM-CSF and were tested by delayed-type hypersensitivity (DTH) skin test, 3 cases of improved immune response were identified, compared to 5 cases of improvement in patients who did

not receive GM-CSF. The main GM-CSF side effects reported were local reactions at the site of injection, fatigue, pain, and fever. Most reported side effects were of mild severity, with some cases of moderate severity leading to discontinuation of GM-CSF. CONCLUSIONS. Our results suggest GM-CSF as employed in this trial did not detectably enhance clinical response to DC-peptide infusions, or significantly enhance the measured immune response.

2/7/11 (Item 11 from file: 5)  
DIALOG(R)File 5:BIOSIS Previews(R)  
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11961089 BIOSIS NO.: 199900207198  
Phase II prostate cancer **vaccine** trial: Report of a study involving 37 patients with disease recurrence following primary treatment.  
AUTHOR: Murphy G P(a); Tjoa B A; Simmons S J; Ragde H; Rogers M; Elgamal A; Kenny G M; Troychak M J; Salgaller M L; Boynton A L  
AUTHOR ADDRESS: (a)Pacific Northwest Cancer Foundation, Northwest Hospital, 120 Northgate Plaza, Suite 205, Seattle\*\*USA  
JOURNAL: Prostate 39 (1):p54-59 April, 1999  
ISSN: 0270-4137  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

ABSTRACT: BACKGROUND. A phase II trial was conducted to assess the efficacy of infusions of dendritic cells (DC) and two HLA-A2-specific **prostate-specific membrane antigen (PSMA)** peptides (PSM-P1 and -P2). This report describes the evaluation of 37 subjects admitted with presumed local recurrence of prostate cancer after primary treatment failure. METHODS. All subjects received six infusions of DC pulsed with PSM-P1 and -P2 at 6-week intervals. Clinical monitoring was conducted pre-, during, and post-phase II study. Data included: complete blood count, bone and total alkaline phosphatase, prostate markers, physical examination; performance status, bone scan, ProstaScint(R) scan, and chest X-ray, as well as other assays to monitor cellular and humoral immune responses. RESULTS. One complete and 10 partial responders were identified from this group based on National Prostate Cancer Project criteria, or on a 50% reduction of prostate-specific antigen (PSA), or on a significant resolution in lesions (biopsy-proven when possible) on ProstaScint(R) scan. CONCLUSIONS. About 30% of study participants in this group showed a positive response at the conclusion of the trial. This study suggests that DC-based cancer **vaccines** may provide an alternative therapy for prostate cancer patients whose primary treatment failed.

2/7/12 (Item 12 from file: 5)  
DIALOG(R)File 5:BIOSIS Previews(R)  
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11952565 BIOSIS NO.: 199900198674  
OncoVax-PTM **vaccine** for prostate cancer induces immune responses to prostate specific antigen in prostate cancer patients.  
AUTHOR: Matyas G R(a); Harris D T; Muderhwa J M; Alving C R; Spitler L E  
AUTHOR ADDRESS: (a)Walter Reed Army Inst. Res., Washington, DC 20307\*\*USA  
JOURNAL: Proceedings of the American Association for Cancer Research Annual Meeting 40p576-577 March, 1999  
CONFERENCE/MEETING: 90th Annual Meeting of the American Association for Cancer Research Philadelphia, Pennsylvania, USA April 10-14, 1999  
SPONSOR: American Association for Cancer Research  
ISSN: 0197-016X  
RECORD TYPE: Citation



LANGUAGE: English

2/7/13 (Item 13 from file: 5)  
DIALOG(R)File 5: Biosis Previews(R)  
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11952563 BIOSIS NO.: 199900198672

Monitoring the immune reactivity of prostate cancer patients  
**vaccinated** with dendritic cells expressing **prostate-specific membrane antigen (PSMA)** peptides during  
a phase II clinical trial.

AUTHOR: Salgaller M L(a); Lodge P A; Bader R R; Kelley H J; Monahan S J;  
Zhou Y; McLean J G; Boynton A L; Murphy G P  
AUTHOR ADDRESS: (a)Northwest Biotherapeutics, Seattle, WA 98125\*\*USA  
JOURNAL: Proceedings of the American Association for Cancer Research Annual  
Meeting 40p576 March, 1999  
CONFERENCE/MEETING: 90th Annual Meeting of the American Association for  
Cancer Research Philadelphia, Pennsylvania, USA April 10-14, 1999  
SPONSOR: American Association for Cancer Research  
ISSN: 0197-016X  
RECORD TYPE: Citation  
LANGUAGE: English

2/7/14 (Item 14 from file: 5)  
DIALOG(R)File 5: Biosis Previews(R)  
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11815954 BIOSIS NO.: 199900062063

Infusion of dendritic cells pulsed with HLA-A2-specific **prostate-specific membrane antigen** peptides: A phase II prostate  
cancer **vaccine** trial involving patients with hormone-refractory  
metastatic disease.

AUTHOR: Murphy G P(a); Tjoa B A; Simmons S J; Jarisch J; Bowes V A; Ragde H  
; Rogers M; Elgamal A; Kenny G M; Cobb O E; Ireton R C; Troychak M J;  
Salgaller M L; Boynton A L  
AUTHOR ADDRESS: (a)Pacific Northwest Cancer Found., Northwest Hosp., 120  
Northgate Plaza, Suite 205, Seattle, WA 98\*\*USA  
JOURNAL: Prostate 38 (1):p73-78 Jan. 1, 1999  
ISSN: 0270-4137  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: BACKGROUND. A phase II trial was conducted to assess the efficacy  
of infusions of dendritic cells (DC) and two HLA-A2-specific **PSMA**  
peptides (PSM-P1 and -P2). This report describes thirty three subjects  
with hormone-refractory metastatic prostate cancer without prior  
**vaccine** therapy history who were evaluated and reported as a group.  
METHODS. All subjects received six infusions of DC pulsed with PSM-P1 and  
-P2 at six week intervals. Clinical monitoring was conducted pre-,  
during, and post- phase II study. Data collected include: complete blood  
count, bone and total alkaline phosphatase, prostate markers, physical  
examination, performance status, bone scan, ProstaScint(R) scan, chest  
x-ray, as well as assays to monitor cellular immune responses. RESULTS.  
Six partial and two complete responders were identified in the phase II  
study based on NPCP criteria, plus 50% reduction of prostate-specific  
antigen (PSA), or resolution in previously measurable lesions on  
ProstaScint(R) scan. CONCLUSIONS. Over 30% of study participants in this  
group showed a positive response at the conclusion of the trial. This  
study suggested that DC-based cancer **vaccines** may provide an  
alternative therapy for prostate cancer patients whose disease no longer  
responds to hormone therapy.

2/7/15 (Item 15 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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10910956 BIOSIS NO.: 199799532101  
Expression of PSA in recombinant BCG: Potential for immunotherapy of prostate cancer.  
AUTHOR: Geliebter J(a); Werber J; Mazzaccaro R; Mish B; Bloom B; Nathenson S G  
AUTHOR ADDRESS: (a)N.Y. Med. Coll., Valhalla, NY 10595\*\*USA  
JOURNAL: Proceedings of the American Association for Cancer Research Annual Meeting 38 (0):p403 1997  
CONFERENCE/MEETING: Eighty-eighth Annual Meeting of the American Association for Cancer Research San Diego, California, USA April 12-16, 1997  
ISSN: 0197-016X  
RECORD TYPE: Citation  
LANGUAGE: English

2/7/16 (Item 16 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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10227661 BIOSIS NO.: 199698682579  
Presentation of prostate tumor antigens by dendritic cells stimulates T-cell proliferation and cytotoxicity.  
AUTHOR: Tjoa Benjamin(a); Boynton Alton; Kenny Gerald; Ragde Haakon; Misrock S Leslie; Murphy Gerald  
AUTHOR ADDRESS: (a)Pacific Northwest Cancer Foundation, Northwest Hospital, 120 Northgate Plaza, Suite 205, Seattle\*\*USA  
JOURNAL: Prostate 28 (1):p65-69 1996  
ISSN: 0270-4137  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: Dendritic cells (DCs) are "professional" antigen-presenting cells capable of stimulating T-cell proliferation and cytotoxicity when loaded with and presenting specific antigens, including tumor antigens. We demonstrated the stimulation of an autologous cytotoxic T-cell response elicited by DC loaded with autologous tumor cell lysate derived from primary prostate tumor. A candidate tumor antigen is **prostate-specific membrane antigen (PSMA)**, which is overexpressed in prostate cancer patients. We identified a HLA-A2 motif in **PSMA**, isolated patient DC, loaded peptide into DC, and stimulated autologous T cells to proliferate. The ability to use DC for presentation of either tumor or peptide antigen in an HLA-restricted fashion in order to stimulate T-cell proliferation and cytotoxicity demonstrates the potential of this technology for development of a prostate cancer **vaccine**.

2/7/17 (Item 1 from file: 73)  
DIALOG(R)File 73:EMBASE  
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11174326 EMBASE No: 2001188452  
Dendritic cells for specific cancer immunotherapy  
Meidenbauer N.; Andreesen R.; Mackensen A.  
A. Mackensen, Department of Hematology/Oncology, University of Regensburg, D-93042 Regensburg Germany  
Biological Chemistry (BIOL. CHEM.) (Germany) 2001, 382/4 (507-520)  
CODEN: BICHF ISSN: 1431-6730

DOCUMENT TYPE: Journal ; Review  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 161

The characterization of tumor-associated antigens recognized by human T lymphocytes in a major histocompatibility complex (MHC)-restricted fashion has opened new possibilities for immunotherapeutic approaches to the treatment of human cancers. Dendritic cells (DC) are professional antigen presenting cells that are well suited to activate T cells toward various antigens, such as tumor-associated antigens, due to their potent constimulatory activity. The availability of large numbers of DC, generated either from hematopoietic progenitor cells or monocytes in vitro or isolated from peripheral blood, has profoundly changed pre-clinical research as well as the clinical evaluation of these cells. Accordingly, appropriately pulsed or transfected DC may be used for **vaccination** in the field of infectious diseases or tumor immunotherapy to induce antigen-specific T cell responses. These observations led to pilot clinical trials of DC **vaccination** for patients with cancer in order to investigate the feasibility, safety, as well as the immunologic and clinical effects of this approach. Initial clinical studies of human DC **vaccines** are generating encouraging preliminary results demonstrating induction of tumor-specific immune responses and tumor regression. Nevertheless, much work is still needed to address several variables that are critical for optimizing this approach and to determine the role of DC-based **vaccines** in tumor immunotherapy.

2/7/18 (Item 2 from file: 73)  
DIALOG(R)File 73:EMBASE  
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11106485 EMBASE No: 2001127868  
Cancer drugs in pipeline span wide spectrum  
McCann J.  
Journal of the National Cancer Institute ( J. NATL. CANCER INST. ) ( United Kingdom) 21 MAR 2001, 93/6 (424-426)  
CODEN: JNCIA ISSN: 0027-8874  
DOCUMENT TYPE: Journal ; Note  
LANGUAGE: ENGLISH

2/7/19 (Item 3 from file: 73)  
DIALOG(R)File 73:EMBASE  
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11077103 EMBASE No: 2001091338  
Dendritic cell **vaccination** for cancer therapy  
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F.O. Nestle, Department of Dermatology, University of Zurich Medical School, Gloriastrasse 31, 8091 Zurich Switzerland  
Oncogene ( ONCOGENE ) (United Kingdom) 27 DEC 2000, 19/56 (6673-6679)  
CODEN: ONCNE ISSN: 0950-9232  
DOCUMENT TYPE: Journal ; Review  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 53

A growing list of defined tumor-antigens opens the way to antigen specific immunotherapy of cancer. However current approaches are often limited in their potential to induce an effective anti-tumor response. Dendritic cells (DC) are natural adjuvants for the induction of antigen specific T cell response. They have been successfully used in clinical pilot trials to induce tumor specific immunity as well as clinical response in selected patients. Current research focuses on optimization of DC source, choice of antigen, antigen loading, mode of injection, as well as immuno-monitoring. Finally, a variety of immune escape mechanisms are

operative at the tumor site and have to be overcome for successful  
vaccination.

2/7/20 (Item 4 from file: 73)  
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10992680 EMBASE No: 2001034092  
What's hot in the prostate?  
Belldegrun A.  
AUTHOR EMAIL: tprinz@urology.medsch.edu  
Prostate Cancer and Prostatic Diseases ( PROSTATE CANCER PROSTATIC DIS. )  
(United Kingdom) 2000, 3/4 (213-216)  
CODEN: PCPDF ISSN: 1365-7852  
DOCUMENT TYPE: Journal ; Editorial  
LANGUAGE: ENGLISH

2/7/21 (Item 5 from file: 73)  
DIALOG(R)File 73:EMBASE  
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10888199 EMBASE No: 2000341610  
Clinical trials of immunotherapy for advanced prostate cancer  
Kuratsukuri K.; Nishisaka N.; Jones R.F.; Wang C.Y.; Haas G.P.  
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Medical Center, 750 E. Adams St., Syracuse, NY 13210 United States  
Urologic Oncology ( UROL. ONCOL. ) (United States) 2000, 5/6 (265-273)  
CODEN: URONE ISSN: 1078-1439  
PUBLISHER ITEM IDENTIFIER: S1078143900000867  
DOCUMENT TYPE: Journal; Review  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 49

There is a lack of effective therapeutic regimens for advanced hormone-  
refractory prostate cancer (HRPC). Recent combination regimens of  
chemotherapy have improved management of HRPC. Neither systemic  
chemotherapy nor radiation regimens have significantly improved survival.  
Conventional systemic cytokine therapy has had limited efficacy in the  
treatment of advanced prostate cancer patients and its toxicity is severe.  
Combinations of multiple biological response modifiers for treatment of  
this disease also have limited efficacy. Results from phase II trials have  
shown that the combination of interferon-alpha and interleukin-2 therapy  
and the infusion of dendritic cells primed with peptides of **prostate  
specific membrane antigen** are promising. The former  
showed 31% response using the National Prostatic Cancer Project criteria,  
and the latter showed 27% of objective partial response with a reduction of  
>50% prostate specific antigen level. The toxicity of these two regimens  
was tolerated by patients. New approaches with tumor **vaccines** in  
conjunction with cytokine gene therapy have also been investigated. The  
clinical responses of these trials have been limited but promising.  
Immunotherapy may become an effective modality of prostate cancer treatment  
in the future. (C) 2000 Elsevier Science Inc.

2/7/22 (Item 6 from file: 73)  
DIALOG(R)File 73:EMBASE  
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10717621 EMBASE No: 2000205829  
Target antigens for prostate cancer immunotherapy  
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90404  
Cancer and Metastasis Reviews ( CANCER METASTASIS REV. ) (Netherlands)

1999, 18/4 (437-449)  
CODEN: CMRED ISSN: 0167-7659  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 103

The detection and treatment of prostate cancer has been markedly improved by the use of Prostate-Specific Antigen (PSA) as a serological biomarker for disease. However, even after surgical intervention and hormone ablation therapy, a significant proportion of patients progress to advanced metastatic disease, for which there is no cure. An important goal has become the identification of antigens in advanced stage prostate cancer that represent targets for therapy. Recently, great progress has been made to utilize immunological therapies to treat cancer. Monoclonal antibody therapy has been successfully approved for the treatment of breast cancer and B-cell lymphoma, and multiple clinical trials are currently in progress in a variety of cancers, including prostate cancer. Pre-clinical and clinical studies are also underway to evaluate cancer **vaccine** approaches directed against antigens that are highly expressed in prostate and other cancers. This article describes several target antigens expressed in prostate cancer and immunological approaches directed against them that may be effective for treating prostate cancer patients.

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DIALOG(R)File 73:EMBASE  
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10627939 EMBASE No: 2000094264  
Immune monitoring of cancer patients undergoing experimental immunotherapy  
Shankar G.; Salgaller M.L.  
G. Shankar, Antigen Research and Discovery, Northwest Biotherapeutics, Inc., 2203 Airport Way South, Seattle, WA 98134 United States  
AUTHOR EMAIL: mls@nwbio.com  
Current Opinion in Molecular Therapeutics ( CURR. OPIN. MOL. THER. ) ( United Kingdom) 2000, 2/1 (66-73)  
CODEN: CUOTF ISSN: 1464-8431  
DOCUMENT TYPE: Journal; Review  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 62

Advancements in the understanding of cellular immunity within the last decade, along with the characterization of tumor antigens, have led to immunotherapeutic approaches for cancer therapy. This mode of treatment is expected to provide more tumor-specific activity, thereby being less toxic to normal cells than standard modalities. Clinical trials are underway throughout the world to determine whether immunotherapy is a practical and viable alternative to conventional cancer therapies. Unlike radiotherapy and chemotherapy, wherein tumor regression is the standard for determining efficacy of the regimens, immunotherapy has to be evaluated by the examination of several immunological parameters within patients. The purpose of this article is to review the methods currently utilized to evaluate the induction, maintenance, and duration of antitumor immune reactivity in cancer patients undergoing immunotherapy.

2/7/24 (Item 8 from file: 73)  
DIALOG(R)File 73:EMBASE  
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10559806 EMBASE No: 2000024601  
Progress in active specific immunotherapy of prostate cancer  
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AUTHOR EMAIL: benhenry@nwbio.org  
Seminars in Surgical Oncology ( SEMIN. SURG. ONCOL. ) (United States)  
2000, 18/1 (80-87)  
CODEN: SSONE ISSN: 8756-0437  
DOCUMENT TYPE: Journal; Review  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 79

Treatments available for metastatic prostate cancer have failed to demonstrate significant curative potential. Current efforts are now directed towards developments of novel strategies for the treatment of metastatic prostate Cancer. Cancer immunotherapeutic strategies utilize patient immune system components to kill cancer cells. This review discusses progress in active specific immunotherapeutic approaches as potential alternative methods in the treatment of metastatic prostate cancer. Various methods of augmenting the immune response against prostate cancer are discussed including systemic cytokine adjuvant therapy, cytokine gene transduced tumor **vaccines**, non- antigen specific immunization, DNA and peptide **vaccines** plus adjuvants, as well as dendritic cell-based cancer **vaccines**.

2/7/25 (Item 9 from file: 73)  
DIALOG(R)File 73:EMBASE  
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10546466 EMBASE No: 2000012343  
Treatment of advanced prostate cancer: The **vaccine** approach  
Mulders P.F.A.  
Dr. P.F.A. Mulders, Department of Urology, University Hospital, PO Box 9101, 6500 HB, Nijmegen Netherlands  
Scandinavian Journal of Urology and Nephrology, Supplement ( SCAND. J. UROL. NEPHROL. SUPPL. ) (Norway) 1999, 33/203 (41-43)  
CODEN: SJUNB ISSN: 0300-8886  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 7

2/7/26 (Item 10 from file: 73)  
DIALOG(R)File 73:EMBASE  
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07689477 EMBASE No: 1999173619  
Changes in gene expression and targets for therapy  
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Dr. M.J.G. Bussemakers, Urology Research Laboratory 814 URL, University Hospital Nijmegen, Geert Grooteplein 16, NL-6500 HB Nijmegen Netherlands  
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European Urology ( EUR. UROL. ) (Switzerland) 1999, 35/5-6 (408-412)  
CODEN: EUURA ISSN: 0302-2838  
DOCUMENT TYPE: Journal; Conference Paper  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 28

A better understanding of the molecular changes associated with the onset and progression of prostate cancer may provide us with a rational basis for the development of new diagnostic and therapeutic tools. Likewise, the recent identification of critical biochemical pathways, including angiogenesis, programmed cell death, cell adhesion and signal transduction, provide us with promising targets for therapeutic approaches. Furthermore, the identification and characterization of new tumor-specific antigens or prostate-cancer-specific gene promoters could be instrumental for the development of new treatment modalities. Many research groups are trying to

identify genes that are involved in prostate cancer development and which may serve as new tumor markers and potential targets for therapy. In addition to prostate-specific antigen, **prostate-specific membrane antigen** and human kallikrein-2, the recently identified prostate stem cell antigen may also provide us with a new tool for the diagnosis and treatment of prostate cancer. Our own studies led to the identification of DD3, a gene that is strongly overexpressed in human prostatic cancers and the expression of which appears to be restricted to the prostate. Further studies are necessary to establish the clinical usefulness of these new prostate-cancer-specific genes for the management of prostate cancer patients.

2/7/27 (Item 11 from file: 73)  
DIALOG(R)File 73:EMBASE  
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07186971 EMBASE No: 1998076809  
Immunological approaches for the treatment of prostate cancer  
Slovin S.F.; Kelly K.; Scher H.I.  
Dr. S.F. Slovin, 1275 York Ave, New York, NY 10021 United States  
Seminars in Urologic Oncology ( SEMIN. UROL. ONCOL. ) (United States)  
1998, 16/1 (53-59)  
CODEN: SUONF ISSN: 1081-0943  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 50

Conventional therapies for patients with early-stage relapsed prostate cancer often do not provide an acceptable quality of life. These patients often have increasing PSAs as the sole manifestation of their disease recurrence and represent a unique subgroup of patients for whom alternative treatment strategies are needed. The patients are asymptomatic and may be an appropriate population for targeted immunological approaches. **Vaccine** therapies, based on synthetically constructed, naturally occurring prostate-associated antigens or genetically modified immune cells, offer exciting new approaches toward treating this disease with resulting antitumor effects and minimal toxicities. The results of clinical trials using these technologies reinforces the use of immunological approaches for the treatment of prostate cancer.

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DIALOG(R)File 73:EMBASE  
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07102382 EMBASE No: 1997384246  
Dendritic cell-based immunotherapy of prostate cancer  
Salgaller M.L.; Tjoa B.A.; Lodge P.A.; Ragde H.; Kenny G.; Boynton A.; Murphy G.P.; Sc D.  
Dr. M.L. Salgaller, Pacific Northwest Cancer Foundation, Northwest Hospital, 120 Northgate Plaza, Seattle, WA 98125 United States  
Critical Reviews in Immunology ( CRIT. REV. IMMUNOL. ) (United States)  
1997, 18/1-2 (109-119)  
CODEN: CCRID ISSN: 1040-8401  
DOCUMENT TYPE: Journal; Conference Paper  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 44

The immunotherapy of cancer, based on eliciting or enhancing the body's own capacity to mount an effective antitumor response, has produced encouraging early results in the areas of melanoma and renal-cell carcinoma. Such treatments utilizing dendritic cells (DC), immune cells that are excellent antigen presenters, are especially promising. We performed a phase I clinical trial assessing the administration of

autologous DC pulsed with HLA-A0201-specific **prostate-specific membrane antigen (PSMA)** for the treatment of 51 men with hormone-refractory prostate cancer. Participants were divided into five groups receiving four or five infusions of peptides alone (PSM-P1 or PSM-P2; group 1 and 2, respectively), autologous DC (group 3), or DC pulsed with PSM-P1 or P2 (group 4 and 5, respectively). No significant toxicity was observed. Immune reactivity against PSM-P2 was detected in HLA-A2+ patients infused with DE pulsed with PSM-P1 or -P2 (group 4 and 5). An average decrease in PSA was observed only in group 5. Seven partial responders were identified based on NPCP criteria + PSA. The excellent tolerance of this treatment approach, as well as the enhanced cellular responses, decreased PSA levels, and partial clinical responses in some patients suggests that it holds great potential in prostate cancer therapy.

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DIALOG(R) File 155:MEDLINE(R)  
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09692213 98177558 PMID: 9516914

Expression of potential target antigens for immunotherapy on primary and metastatic prostate cancers.

Zhang S; Zhang HS; Reuter VE; Slovin SF; Scher HI; Livingston PO  
Clinical Immunology Service, Memorial Sloan-Kettering Cancer Center, New York, New York 10021, USA.

Clinical cancer research (UNITED STATES) Feb 1998, 4 (2) p295-302,  
ISSN 1078-0432 Journal Code: C2H

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Languages: ENGLISH

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Defining the expression of tumor-associated antigens on primary and metastatic prostate cancer is the crucial first step in selecting appropriate targets for immune attack. In this study, the distribution of the tumor-associated antigens GM2, Tn, sTn, Thompson-Friedenreich antigen (TF), Globo H, Le(y), MUC1, MUC2, MUC3, MUC4, MUC5AC, MUC5B, MUC7, carcinoembryonic antigen, beta chain of human chorionic gonadotropin (hCG beta), HER2/neu, **PSMA**, and KSA on primary and metastatic prostate cancer and 16 types of normal tissues was compared by immunohistochemistry, using a panel of well-characterized monoclonal antibodies. Our results show that GM2, KSA, and MUC2 were strongly expressed on 8 or 9 of 9 metastatic prostate cancer biopsy specimens and, with **PSMA**, hCG beta, TF, Tn, and sTn, on 8 or more of 11 primary prostate cancer specimens. Tn, MUC1, and **PSMA** were expressed on 4-6 of 9 metastatic specimens. The remaining antigens were expressed on no more than three of nine metastatic specimens. Normal tissues were also tested with all antibodies. With regard to the eight antigens most widely expressed on prostate cancers, **PSMA** was not expressed significantly on any of the normal tissues except prostate epithelium. Tn, sTn, hCG beta, and MUC2 were detected on up to 3 of 10 types of normal epithelia. GM2, TF, MUC1, and KSA were more broadly distributed on normal epithelia, all primarily at the secretory borders. STn, KSA, and hCG beta were also detected in the testis, and GM2 was expressed on gray matter of brain. From the 30 antigens that we have screened, this study provides the basis for selecting GM2, TF, Tn, sTn, hCG beta, MUC1, MUC2, KSA, and **PSMA** as target antigens for specific immunotherapy of prostate cancer.